

REMARKS

Claims 1-3 are pending and under consideration in the above-identified application.

In the Office Action, Claims 1-3 were rejected.

In this Amendment, Claim 1 is amended. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1-3 remain at issue.

I. 35 U.S.C. § 102 Anticipation Rejection of Claim 1

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by *Talieh* (U.S. Patent No. 6,176,992). Although Applicants respectfully traverse this rejection, Claim 1 has been amended to clarify the invention and remove any ambiguities that may have been at the basis of this rejection.

Claim 1 is directed to an electropolishing apparatus. The electropolishing apparatus comprises a polishing surface plate including a cathode, a polishing pad disposed on the polishing surface plate, a substrate holding unit which holds a work substrate, an outer circumferential portion of the work surface disposed outside of the polishing surface of the polishing pad, an anode to be brought into contact with the work surface, a chemical liquid supply unit which supplies the chemical liquid polish, and a power source for supplying electric power.

In the relevant part, Claim 1 recites that a chemical liquid supply unit which supplies a chemical liquid polish onto the polishing pad onto a substantially central portion of the polishing pad so that the chemical liquid impregnates the polishing pad while moving in an outer circumferential direction of the rotating polishing pad towards the substrate holding unit.

Referring to Applicants' Figure 1 as an illustrative example, Applicants' claimed invention comprises a chemical liquid supply unit 31 which includes nozzles 33, 34, and 35 used for supplying the chemical liquid polish onto a substantially central portion of the polishing pad 16, so that the chemical liquid polish impregnates the polishing pad 16 while moving in an outer circumferential direction of the rotating polishing pad 16 towards the substrate holding unit 21.

This is clearly unlike *Talieh*. In fact, *Talieh* teaches and illustrates in at least FIGs. 1A and 1B, that an In-Channel 34 dispenses the chemical liquid from below the polishing pad 32 and another In-Channel 44 dispenses the chemical liquid simultaneously onto an available radial surface of the polishing pad 32. This available radial surface of the polishing pad 32 is diametrically opposite to another radial surface of polishing pad 32 which is positioned below the pad 25 and the wafer. These two diametrically opposite radial surfaces of the polishing pad 32 are separated at a radially central location by the motorized spindle 38. As such, the In-Channel 44 does not dispense the chemical liquid at a substantially central radial portion of the polishing pad 32, which leads the dispensed chemical liquid polish to impregnate the polishing pad 32 while moving radially away from the pad 25 rather than towards it, as required by Claim 1.

For at least this reason, *Talieh* fails to teach or suggest all of the limitations of Claim 1. Thus, Claim 1 is patentable over *Talieh*.

Accordingly, Applicants respectfully request that this claim rejection be withdrawn.

II. 35 U.S.C. § 103 Obviousness Rejection of Claim 2

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Talieh* in regards to claim 1 as stated above, in view of Duboust et al. ("*Duboust*") (U.S. Publication No. 2003/0116446), further in view of Chang et al. ("*Chang*") (U.S. Patent No. 6,206,760), and further in view of Kondo et al. ("*Kondo*") (U.S. Publication No. 2002/0061722). Applicants respectfully traverse this rejection.

Claim 2 is dependent on Claim 1, shown above to be patentable over *Talieh*. Moreover, in addition to *Talieh*, each one of the three references, *Duboust*, *Chang* and *Kondo*, also fails to teach or suggest that a chemical liquid supply unit for supplying a chemical liquid polish onto the polishing pad onto a substantially central portion of the polishing pad so that the chemical liquid impregnates the polishing pad while moving in an outer circumferential direction of the rotating polishing pad towards the substrate holding unit. As such, *Talieh*, *Duboust*, *Chang* and *Kondo* may not be properly combined to reject Claim 1.

Thus, Claim 1 is patentable over *Talieh, Duboust Chang* and *Kondo*, taken singly or in combination, as is dependent Claim 2, for at least the same reasons.

Accordingly, Applicants respectfully request that these 35 U.S.C. § 103 claim rejections be withdrawn.

III. 35 U.S.C. § 103 Obviousness Rejection of Claim 3

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Talieh* regards to claim 1 as stated above, in view of *Duboust*.

Claim 3 is dependent on Claim 1, shown above to be patentable over *Talieh, Duboust Chang* and *Kondo*. Thus, Claim 1 is patentable over *Talieh* and *Duboust*, taken singly or in combination, as is dependent Claim 3, for at least the same reasons.

Accordingly, Applicants respectfully request that these 35 U.S.C. § 103 claim rejections be withdrawn.

IV. Conclusion

In view of the above amendments and remarks, Applicant submits that Claims 1 – 3 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Dated: Dec 20, 2007

By: 

Respectfully submitted,

David R. Metzger
Registration No. 32,919
SONNENSCHN NATH & ROSENTHAL LLP
P.O. Box 061080
Wacker Drive Station, Sears Tower
Chicago, Illinois 60606-1080
(312) 876-8000